



ADVANCED AUTOMATION SYSTEM

VOICE SWITCHING CONTROL SYSTEM

CONSOLE EQUIPMENT

MAN-MACHINE INTERFACE REQUIREMENTS

FAA-VS-AAP-001

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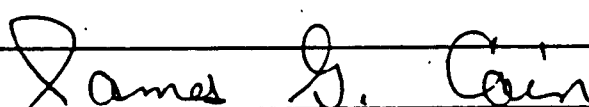
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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TABLE OF CONTENTS

	<u>page</u>
TABLE OF CONTENTS	i
1.0 INTRODUCTION	1
2.0 AIR TO GROUND COMMUNICATIONS	1
2.1 FREQUENCY SELECTION	1
2.2 MAIN/STANDBY (M/S) TRANSMITTER SELECTION	1
2.3 MAIN/STANDBY RECEIVER SELECTION	2
2.4 CROSS-COUPLED FREQUENCIES	2
2.5 CONTROL OF TRANSMISSION AND RECEPTION	2
2.6 TRANSMITTER/RECEIVER REMOTE SITE SELECTION	3
2.7 AUTOMATIC TRANSFER OF AIR TO GROUND VOICE ROUTING	3
2.8 SELECTION OF PRE-RECORDED WEATHER MESSAGES	3
2.9 SELECTION AND ASSIGNMENT OF BACK UP EMERGENCY COMMUNICATIONS	3
2.10 EMERGENCY FREQUENCIES	3
2.11 PUSH TO TALK	4
2.12 CROSS LINKED COMMON CONSOLES	4
3.0 GROUND TO GROUND COMMUNICATIONS	5
3.1 ROUTING OF INCOMING GROUND TO GROUND VOICE	5
3.2 INCOMING GROUND TO GROUND CALL INDICATION	5
3.3 RELIEF BRIEFING RECORDING	5
3.4 MONITOR RECORDING AND VOICE MONITORING	5
3.5 PUSH TO TALK FOR GROUND TO GROUND COMMUNICATIONS	6
3.6 DIRECT ACCESS (DA) ACTIVATION	6
3.7 ATIS MONITORING	6
3.8 INTERCOM/INTERPHONE (IC/IP)	6
3.8.1 Call Disconnection	6

3.8.2	Direct Access	7
3.8.2.1	Latching/Nonlatching Direct Access Selection	7
3.8.2.2	Direct Access Override Initiate	7
3.8.2.3	Override Call Answer	7
3.8.3	Indirect Access	7
3.8.3.1	Common Answer Queue	7
3.8.4	Call HOLD	8
3.8.5	Call Forwarding	8
3.8.6	Call Transfer	8
3.8.7	Conference Calls	8
3.8.7.1	Progressive Conferencing	9
3.8.7.2	Meet-Me Conferencing	9
3.8.7.3	Preset Conferencing	9
3.8.7.4	Conference HOLD	9
3.8.7.5	Release From Conference	9
3.8.8	Voice Calls	9
3.8.9	Manual-Ring Circuits	10
3.8.10	IA Special Functions	10
3.8.11	VSCS Numbering Plan	10
4.0	VSCS CONSOLE EQUIPMENT (VCE)	11
4.1	LOUDSPEAKERS	11
4.2	JACK MODULES	11
4.2.1	Headset/Handset/PTT Jacks	11
4.2.2	Keypad Handsets	11
4.3	CHIMES	11
4.4	INTERACTIVE DISPLAY PANELS	12
4.5	IA KEYPAD	12
4.6	INDEPENDENCE	12
5.0	ACRONYMS AND GLOSSARY	13
5.1	ACRONYMS	13
5.2	GLOSSARY	13

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1.0 INTRODUCTION

This document sets forth the Voice Switching and Control System (VSCS) functional requirements which must be accommodated by the Man-Machine Interface (MMI) design of those VSCS elements to be installed in the Advanced Automation System (AAS) Common Console.

The AAS contractors are to design the VSCS MMI to satisfy the requirements in this document and to be compatible with the AAS MMI design. The VSCS contractors will, in turn, design hardware and software which satisfies that MMI design.

2.0 AIR TO GROUND COMMUNICATIONS

Each common console within a facility shall have the capability for assignment of Air to Ground (A/G) communications functions including, but not limited to, the following:

2.1 FREQUENCY SELECTION

The capability shall be provided to select and deselect any Frequency or Frequencies from those (up to 24) assigned to the common console. This capability shall be provided by crosslinking two adjacent common consoles (with 12 Frequencies on each common console) or by providing 24 A/G Frequencies on one common console. Frequencies shall be selected by a single touch action but may be deselected by individual single touch actions that disable the transmission and reception.

Every assigned Frequency and its selection status shall be continuously visible. VHF Frequencies shall be displayed in MHz by 0.025MHz (e.g., 125.550) and UHF Frequencies shall be displayed in MHz by 0.1 MHz (e.g., 217.3).

Routing of received voice to either the console headset/handset or to the console A/G loudspeaker shall be selectable for each Frequency and visual indication of that routing shall be provided.

Distinct visual indications of the presence of Push to Talk (PTT) confirmation and receiver squelch break shall be provided for every assigned Frequency including emergency Frequencies whether or not the Frequency has been selected for use. This indication shall clearly distinguish between PTT on those Frequencies with transmit capabilities enabled and those with transmit capabilities not enabled, and between reception of squelch break on Frequencies with receive capabilities enabled and those with receive capabilities not enabled.

2.2 MAIN/STANDBY (M/S) TRANSMITTER SELECTION

The capability shall be provided to toggle between the main and standby transmitter for each selected Frequency. The main/standby transmitter selection shall be by a single touch action, except that two touch actions may be used if 24 A/G Frequencies are provided on one common console.

| If selection of 12 or fewer Frequencies is provided at one common console,
| then a continuously visible indication of main/standby transmitter selection

status shall be provided for every selected Frequency except that Frequencies using Back Up Emergency Communications (BUEC) shall not have M/S transmitter indication.

2.3 MAIN/STANDBY RECEIVER SELECTION

| The capability shall be provided to toggle between the main and standby receiver for each selected Frequency. The main/standby receiver selection shall be enabled by a single touch action except that two touch actions may be used if 24 A/G Frequencies are provided on one common console. M/S receiver selection shall function only for selected Frequencies that are not using BUEC and that are not using a transceiver.

| If selection of 12 or fewer Frequencies is provided at one common console, then a continuously visible indication of main/standby receiver selection status shall be provided for every selected Frequency except that Frequencies using BUEC shall not have M/S receiver indications.

2.4 CROSS-COUPLED FREQUENCIES

Cross-coupling is the capability to transmit the received voice of one Frequency of a Frequency pair over the other Frequency of the pair, without operator intervention. The capability shall be provided to cross-couple any two pairs of Frequencies that are not assigned to selective mode operations, are not using BUEC and have been designated for cross-coupling by site adaptation. The enabled or disabled cross-coupling status of selected Frequencies which are eligible for cross-coupling shall be continuously visible.

The capability shall be provided to have neither, either, or both receiver-to-transmitter path(s) enabled at any given time. Activation of PTT affecting a cross-coupled transmitter will cause preemption of any cross-coupled transmission that may be in progress and PTT release will restore cross-coupling.

2.5 CONTROL OF TRANSMISSION AND RECEPTION

The capability shall be provided for the local enabling or disabling of the transmission of voice and independently the reception of voice, for any one or more selected Frequencies. Enabling or disabling of either the transmission or reception, but not both, for a selected Frequency shall not cause deselection of the Frequency. Disabling of both transmission and reception for a selected Frequency shall cause the deselection of the Frequency. Disabling of transmission or reception for any Frequency shall not affect transmission or reception on that Frequency at any other common console. The status of the transmitter and receiver for each selected Frequency shall be continuously visible.

The capability shall be provided to remotely mute received voice for adapted assigned Frequencies.

| 2.6 TRANSMITTER/RECEIVER REMOTE SITE SELECTION

The capability shall be provided for adapted common consoles to select use of one of up to six available remote radio transmitter/receiver sites for each selected Frequency. Selection of a new site shall automatically deselect a previously selected site.

2.7 AUTOMATIC TRANSFER OF AIR TO GROUND VOICE ROUTING

The capability shall be provided to enable and disable automatic transfer of incoming A/G voice from the headset(s) to the A/G loudspeaker when the headset/handset is in use for Ground to Ground (G/G) communications. The selection status of A/G voice routing automatic transfer shall be continuously visible.

2.8 SELECTION OF PRE-RECORDED WEATHER MESSAGES

The capability shall be provided to select one of four weather information recordings optionally for monitor or broadcast. Visual indication of the selected weather recording and the transmission of the selected weather recording on the selected Frequency(ies) (for duration of that transmission) shall be provided. The weather-recording selection sequence shall be terminated by an A/G PTT action at the common console which initiated the broadcast. The weather broadcast will be terminated on each Frequency by PTT on that frequency at any common console.

2.9 SELECTION AND ASSIGNMENT OF BACK UP EMERGENCY COMMUNICATIONS

Visual indication shall be provided of which Frequency or Frequencies, if any, are available on the BUEC system. The associated BUEC priority-level shall also be indicated. An alert shall be provided to the common console and to the supervisor if BUEC access is requested and is for any reason not available.

The capability shall be provided to select and deselect BUEC on any one of the Frequencies for which BUEC is available.

2.10 EMERGENCY FREQUENCIES

UHF and VHF emergency Frequencies of 243.0 MHz and 121.500 MHz shall be available at each common console. The capability shall be provided for selection and deselection of local muting for either or both emergency Frequencies. Emergency Frequencies and emergency Frequency controls shall be uniquely marked.

Transmission on either emergency Frequency or both of the emergency Frequencies simultaneously shall require a single, continuous, nonlatching touch action. Voice shall be transmitted over the selected emergency Frequency for the duration of the operator touch.

2.11 PUSH TO TALK

All voice transmission of A/G communications, except emergency Frequency communications, shall be activated by either a hand-activated PTT device or a foot-activated PTT device at the option of the operator.

Except where PTT preemption is permitted by classmark, an attempt to transmit on a Frequency currently being used for transmission shall cause a PTT lockout of that Frequency at the attempting common console. A visual and an audible indication that the transmission on the Frequency has been locked out shall be provided.

2.12 CROSS LINKED COMMON CONSOLES

The capability shall be provided to link the VSCS capabilities of every two adjacent common consoles. This linking will provide transmission on all Frequencies selected at both common consoles when PTT is activated at either common console. Likewise, this linking will provide received voice at both common consoles from Frequencies selected at either common console.

3.0 GROUND TO GROUND COMMUNICATIONS

Each common console within a facility shall have the capability for assignment of G/G communications functions including, but not be limited to, the following:

- a. Call types: intercom and interphone
- b. Call modes: direct access, indirect access, and voice calls
- c. Call features: override, hold, forwarding, transfer, conferencing, common answer (CA) queueing, call release, routing of incoming G/G calls to Headset (HS) or G/G Loudspeaker (LS), recording of relief briefings, voice monitoring, PTT, and manual ring.

Requirements for G/G communications are detailed in the following paragraphs.

3.1 ROUTING OF INCOMING GROUND TO GROUND VOICE

Separate selection of HS/LS routing shall be provided for incoming Override (OVR) calls and for incoming non-OVR calls. Incoming voice call routing, however, shall be in accordance with 3.8.8. A continuous visual indication of each selected G/G path routing shall be provided.

3.2 INCOMING GROUND TO GROUND CALL INDICATION

A distinct visual indication at the appropriate touch response area shall be provided for all incoming G/G calls requiring a touch action to answer the call and, except for voice call, the visual indication shall be accompanied by sounding the chime if it has been enabled.

3.3 RELIEF BRIEFING RECORDING

Recording of relief briefing between the operator going off duty and the operator assuming duties shall be provided. The relief briefing recording prerequisite is that two headsets/handsets are plugged in. A continuous visual indication shall be provided for the duration of the relief briefing. Relief briefing recording shall be deactivated by touch action and by the disconnection of either of the prerequisite headsets/handsets.

3.4 MONITOR RECORDING AND VOICE MONITORING

The capability shall be provided for each specifically classmarked common console to monitor record all voice communications directed to and emanating from any other one to six common consoles within the facility. The capability shall also be provided for these classmarked common consoles to monitor all voice communications directed to and emanating from any other common console within the facility, including those being monitor recorded. The common consoles being monitor recorded or monitored shall receive no visual, audible, or other indication of monitor recording or monitoring.

Voice monitoring shall be suspended when the monitoring common console

initiates or answers G/G communication or receives an OVR call and shall be resumed when these communications are complete. Voice monitor recording and monitoring shall be terminated by individually terminating each active selection. A continuous visual indication of which common consoles are being monitor recorded or monitored shall be provided.

3.5 PUSH TO TALK FOR GROUND TO GROUND COMMUNICATIONS

All voice transmission with the exception of OVR calls classmarked to use nonlatching activation, shall be enabled by either a hand-activated PTT device or a foot-activated PTT device (user option).

3.6 DIRECT ACCESS (DA) ACTIVATION

DA calls shall be activated by a single touch action and call release shall be effected as described in 3.8.1.

3.7 ATIS MONITORING

Capabilities for monitoring Automated Terminal Information Service (ATIS) recordings shall be provided to common consoles which have been classmarked for this feature.

3.8 INTERCOM/INTERPHONE (IC/IP)

The IC shall permit any common console within a facility to communicate with any other common console within that facility. The IP shall permit any common console within a facility to communicate with any common console at another facility.

Initiation of an IC/IP call shall cause the release (deactivation) of any previously activated calls which have not been placed on HOLD.

3.8.1 Call Disconnection

Calls shall be disconnected by any of the following release methods:

- a. A single touch action of the call release designator
- b. A single touch action to the active DA call designator or to the active call designator in the incoming CA queue area
- c. Initiation of another DA or Indirect Access (IA) call
- d. Any touch action required to answer an incoming call
- e. Any touch action that resumes a call that had previously been placed on HOLD
- f. With the exception of OVR calls, either of the last two parties on the call performs any of the release actions described above.

3.8.2 Direct Access

The capability shall be provided to access at least 50 DA circuits. At least 25 of these circuits shall each be accessible by a single touch action.

3.8.2.1 Latching/Nonlatching Direct Access Selection - Each DA selector shall be classmarked as either latching or nonlatching. A latching selector shall require a touch action to activate the selector; a second touch action or other call release shall be required to deactivate the selector. A nonlatching selector shall require a continuous touch action to initiate and maintain activation of the circuit. A continuous visual indication shall be provided showing that a selector is latching or is nonlatching.

3.8.2.2 Direct Access Override Initiate - Capability shall be provided to place IC/IP DA OVR calls to any other common console for which the calling common console has DA OVR classmark. DA OVR calls shall be disconnected (released) by the calling party only; an overridden party shall not be permitted to disconnect or transfer any incoming OVR call. DA selectors shall be distinctly marked to indicate their OVR capability.

3.8.2.3 Override Call Answer - No touch actions or PTT activations shall be required to answer any incoming OVR call. An audible and a visual indication of an incoming OVR call shall be provided. A visual indication and an audible indication distinct from that for the first incoming OVR call shall be provided for any additional incoming OVR calls. The designator(s) of the overriding caller shall be displayed for the duration of time that an OVR call is in progress.

3.8.3 Indirect Access

Both IC and IP circuits shall be accessible via IA. Any IA call shall be initiated by enabling the IA keypad, then entering the number sequence for the desired call destination. The IA keypad shall be disabled for acceptance of input whenever a parameter time interval has elapsed since activation of the IA keypad, or; a parameter time interval has elapsed since the last digit was entered prior to a complete dialing sequence, or; upon completion of a dialing sequence.

The OVR initiate capability of 3.8.2.2 shall be provided by entering an OVR function code, or equivalent, preceding the dialing sequence.

3.8.3.1 Common Answer Queue - Incoming DA calls to a common console that does not have corresponding DA touch areas for answering the call and all IA calls except IA OVR calls shall be directed to the CA queue.

The CA queue display area shall display the designator of the call source except where call source information is not available, the line/trunk designator for that incoming call shall be displayed. Call source and line/trunk designators of up to 15 alphanumeric characters shall be

accommodated.

Provision shall be made to accommodate up to four calls in the CA queue, including an active CA queue call and queue calls on HOLD. When the answer queue is full, incoming calls that would normally be directed to the CA queue will not be connected, and a busy indication will be sent to the calling party.

Calls in the answer queue shall be selectable in any order for answering except that if the user elects automatic selection, then the pending call that has been in the CA queue for the longest and that is not on hold will be answered.

3.8.4 Call HOLD

The capability shall be provided to place any call except OVR (including participation in conference calls), in a HOLD status with a single touch of the HOLD area. The capability to resume a call on HOLD by a single touch action shall be provided.

A continuous visual indication that a call is in a HOLD status shall be provided for the duration of time that a call is on HOLD. A CA queue call placed on HOLD will retain its position in the CA queue.

3.8.5 Call Forwarding

Call forwarding shall be provided for all common consoles. When the call forwarding feature is enabled, all incoming G/G calls shall be redirected to a designated destination within the facility. Call forwarding shall be controllable by the forwarding common console and by the supervisory or maintenance consoles classmarked for that capability.

Calls shall not be forwarded to common consoles that have their calls forwarded nor to themselves. An indication shall be given when the designated forwarded common console has its calls forwarded.

For the duration of time that call forwarding is in effect, a message shall be provided on the G/G display indicating that call forwarding is in effect with the designator of the destination. The cognizant area supervisor shall be provided an indication when a common console has enabled call forwarding and when that common console subsequently disables call forwarding.

3.8.6 Call Transfer

The capability shall be provided at every common console to transfer any calls except override calls to any other common console within a facility subject to availability of connection at the transferred-to console. Transfer to a nonoperational common console shall not be permitted.

3.8.7 Conference Calls

The capability shall be provided to initiate and participate in conference

calls. Three types of conference capabilities shall be provided: progressive conferencing, meet-me conferencing, and preset conferencing. Access to each conferencing capability shall be separately defined and limited by classmarks. IA and DA access to conference calls shall be provided. Visual indication of participation in any conference call shall be provided to all conferees for the duration of the conference call.

3.8.7.1 Progressive Conferencing - All answered non-OVR IA and non OVR DA calls initiated at the common console after the conference function is enabled shall become participants in the conference call up to the conference limit of the VSCS or of the common console, whichever is less.

3.8.7.2 Meet-Me Conferencing - The capability shall be provided to establish a meet-me conference bridge. Once established, each common console accessing the bridge, up to the conference limit of the VSCS, shall become a party to any conference on the bridge.

3.8.7.3 Preset Conferences - Preset conference originators and conferees are set in VSCS adaptation. Preset conferences shall be originated from an authorized common console by DA. Ringdown to each preset conferee will be provided. Each called party, up to the VSCS conference limit, shall be able to join the conference by answering the call.

3.8.7.4 Conference HOLD - The capability shall be provided for any participant in a conference call to suspend participation in the conference call by activation of the HOLD function. A continuous visual indication of HOLD status shall be provided on the conference participation indicator while the conference is active. Participation in the conference call shall be resumed by a single touch action to the conference participation indicator.

3.8.7.5 Release From Conference - Any participant in a conference call shall be provided the capability to release from the conference call at any time without affecting the continued participation in the conference by any other common console.

3.8.8 Voice Calls

VSCS will provide multiple (up to 100) voice call circuits (trunks) each of which can be accessed by any number of common consoles but can be simultaneously used by no more than 5 common consoles. Each common console which has the necessary access classmark for a particular trunk shall be provided the capability to initiate voice calls on that trunk by DA. In addition, each trunk shall be accessible by every common console through IA. Incoming voice calls shall be routed to the G/G LS at all those common consoles that are on the particular voice call circuit. A unique visual indication identifying the voice call shall be provided on a DA selector at each called common console on the voice call circuit, and connection to the voice call shall be completed by a single touch of that DA selector.

When a voice call is answered, the voice path at an answering common console

shall be the selected G/G incoming voice path routing. Voice calls shall be released when all but one participant has disconnected.

Voice call participants shall be provided a distinct visual indication of participation in the voice call for the duration of that participation. In addition, all common consoles on the voice call circuit which are not participants in the voice call shall be provided a distinct visual indication that the circuit is busy.

3.8.9 Manual-Ring Circuits

The capability shall be provided to invoke manual ring by a non-latching touch action for those calls initiated on lines requiring manual ring. The manual ring feature shall be available at all times during the interval between initiation of a manual ring call and the call being released by the calling party.

3.8.10 IA Special Functions

For functions at a common console for which it is not practical nor desirable to maintain continuous direct operator accessibility IA entry sequences to effect the desired functions shall be provided with the numbering plan devised to satisfy 3.8.11. The use of IA special functions shall not affect any A/G or G/G communications that may be in progress.

3.8.11 VSCS Numbering Plan

A comprehensive numbering plan shall be provided (subject to FAA approval) to support the following features:

- a. Access to all operational positions at any facility
- b. Minimum-length number sequence adequate for proposed facility sizing
- c. Abbreviated "dialing" for frequently used Public Switched Telephone Network (PSTN), Federal Telecommunications System (FTS), and inter-facility calls
- d. Access to IA control functions
- e. Access to supervisory functions.

4.0 VSCS CONSOLE EQUIPMENT (VCE)

The VCE shall include:

- a. Two loudspeakers with associated volume controls
- b. Jack modules
- c. Chime capability with associated volume and on/off control
- d. Interactive display panel(s)
- e. IA keypad
- f. Handsets and Headsets with PTT switches
- g. A foot activated switch
- h. Other elements which may be required by particular MMI designs.

4.1 LOUDSPEAKERS

Each common console shall be provided two identical loudspeakers, one designated for A/G communications, the other for G/G communications. The loudspeakers shall be mounted close to the left and right extremities of the common console width. Independent volume control shall be provided for each loudspeaker. Loudspeakers at one half of full volume level shall be capable of providing speech intelligibility which can satisfy the ANSI standard method of phonetically balanced monosyllabic word intelligibility, S3.2-1960, with a minimum score of 90 percent over the frequency range of 300 to 3000 Hz. The LS volume shall be continuously (granularity one decibel or less) adjustable with logarithmic audio taper over its entire range.

4.2 JACK MODULES

4.2.1 Headset/Handset/PTT Jacks

Multiple jack modules shall be provided for each common console. These modules shall be capable of accommodating three headsets or handsets and their associated PTT switches. One jack shall provide PTT preemption capabilities and a second jack shall be preemptable. Independent volume control shall be provided for each jack.

4.2.2 Keypad Handsets

Telephone-type handsets with an integrated keypad and PTT switch shall be accommodated as a substitute for the IA keypad and headset/handset. These handsets shall provide IA signaling identical to that of the IA keypad device.

4.3 CHIMES

A chime capability shall be provided for each console. The chime capability shall generate one of five distinct tones. Selection of one of the five tones at a given Common Console (C/C) by facility maintenance personnel shall be provided.

An on/off switch, volume control, and visual on/off status indicator capability shall be provided for the chime. The chime volume control and the G/G LS volume control shall be coupled in such a way that the apparent ratio

of chime volume to LS volume remains constant when the LS volume control is adjusted up or down. The chime volume control shall permit adjustment of the LS volume to chime volume ratio. Apparent chime volume shall never exceed LS volume.

4.4 INTERACTIVE DISPLAY PANELS

These panels shall meet all requirements for the AAS common console interactive displays and touch entry devices which are specified in FAA-ER-130-005.

4.5 INDIRECT ACCESS KEYPAD

The IA keypad device shall provide a telephone-type three by three plus one key matrix with the zero digit centered on the bottom row. In addition, this device shall include a call initiation pushbutton, a release pushbutton, and a backspace pushbutton for correcting erroneous entries.

4.6 INDEPENDENCE

VCE elements shall be electrically separate and independent of C/C elements except:

- a. C/C power can be used for one of the two power sources as specified in FAA-ER-130-005, paragraph 3.3.10.1.
- b. A passive switch may be used to interchange a VCE element with a C/C element provided that the MMI design permits full VSCS functional capability in the event of passive switch failure. The switched elements shall be considered part of whichever system they are connected to at a particular time.

5.0 ACRONYMS AND GLOSSARY

5.1 ACRONYMS

A/G - Air to Ground
BUEC - Back Up Emergency Communications
CA - Common Answer
C/C - Common Console
DA - Direct Access
FTS - Federal Telecommunications System
G/G - Ground to Ground
HS - Headset
IA - Indirect Access
IC - Intercom
IP - Interphone
LS - Loudspeaker
M/S - Main/Standby
OVR - Override
PTT - Push to Talk
PSTN - Public Switched Telephone Network
TCS - Terminal Communications System

5.2 GLOSSARY

BUEC (Backup Emergency Communications) - A secondary backup A/G communications network that is independent of primary A/G communications transmission paths and equipment. BUEC is not the same as the Backup A/G Switch.

Call - A demand to set up a communication connection.

Call Forwarding - A call feature that permits the user to instruct the switching equipment to redirect G/G calls destined for one C/C to an alternate C/C.

Call Transfer - A call feature that allows a user to redirect a G/G call that has either been answered or that is in the CA queue at a given C/C to another C/C.

Classmark - Software adaptation which controls access to VSCS services and functions. A service classmark enables or disables the class of service with respect to a trunk circuit, mainly its signaling as defined by an Interface Control Document (ICD). An operational classmark enables or disables each common console's access to particular VSCS communication capabilities.

Common Answer - A feature which causes certain G/G calls incoming to a C/C to be directed to a queue from which they can be selectively answered by the user (also known as automatic call parking).

Common Console - Can be either physical or operational. Physical common consoles are the equipment elements of the Advanced Automation System through which the ACCC controllers and other operating personnel interface with the NAS. Operational common consoles are subdivisions of an Operational Position.

Cross-Coupling - A feature which causes the received voice on one Frequency

of a pair of Frequencies to be transmitted over the other Frequency of that pair without operator intervention.

Frequency - A communications channel which includes an A/G radio frequency (RF) link in its path. The channel designator is numerically equal to the carrier or the bandwidth center frequency employed in the RF segment.

Hold - The capability of suspending a call in progress while placing or answering another call.

Indirect Access - A call mode wherein the call processing sequence required to establish a communication link or to select a control function is accomplished by entering multi-digit numbers on a keypad.

Lockout - The inability of one or more users to initiate voice transmission on a given circuit because that circuit is already enabled or in use (see Push-to-Talk).

Manual Ring - A selective signaling arrangement that consists of a manual ring, generated by the calling party, to alert a specific station on a multidrop circuit in which all stations receive the ringing signal.

Meet-Me Conference - A conference call in which parties desiring to enter a (pre-arranged) conference call do so by individually accessing the conference feature (e.g., a conference bridge).

Muting - The capability to eliminate receiver output volume on selected air/ground channels. Local muting affects only the common console which elects muting. Remote muting affects all common consoles using the muted frequencies.

Operational Position - An ACCC Sector Suite or TCCC Position Console adapted to provide automation support for a particular ATC service or function.

Seven positions are specified in the ACCC:

En Route Control Position

Radar Approach Control Position

Non-Radar Approach Control Position

Oceanic Control Position

Traffic Management Position

Area Supervisor Position

Area Manager Position

Preempt - The disconnection and subsequent reuse of part or all of an established communication capability by a higher priority user. Jack module preemption is disconnection and subsequent reuse of all the pre-established connections at a C/C. PTT preemption by Frequency classmark is disconnection and subsequent reuse of part of the established connection(s).

Preemption Capability - Ability to take over all existing communications channels.

Progressive Conference - A conference call in which conferees are successively added to the conference, up to the conference limit, at the discretion of the calling party.

PTT Lockout - Lockout which occurs when an attempt is made to transmit on a Frequency that is already being used and for which the attempting position does not have PTT preemption.

PTT Preemption - A classmarked capability for a Frequency at a C/C whereby PTT activation from that C/C will cause seizing of the Frequency, locking out all other potential users.

Push-to-Talk (PTT) - Communication over a simplex path (one direction at a time) which requires continuous activation of a switch to stay in the "send" direction.

Remote Override - The capability to provide override between two independent systems, e.g., VSCS to/from Terminal Communications System (TCS).

Sector Suite - The collection of data entry and display equipment that is required at an operational position during the Initial Sector Suite System or full Advanced Automation System timeframe.

Trunk - A communication channel between two switching systems. A two-wire or four-wire circuit that can be a leased or Government-owned transmission facility connecting the VSCS with external or remote equipment.

Voice Call - A call mode wherein initial reception is always through the loudspeaker at the called C/C. Voice calling is an overlay mode, that is, it can be used in conjunction with direct access or indirect access modes. Also known as group alerting.